

### CLAIMS

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a'

1. A rotating machine having a plurality of permanent magnet having changing pluralities in a circumferential direction at regular intervals and a relatively rotatable associated element having a plurality of armatures around which coil windings are formed, the magnet electrical angle of the poles of the permanent magnets is set with respect to the rotational axis to be in an electrical range of  $120^\circ$  to  $140^\circ$ .

2. A rotating machine as set forth in claim 1 wherein the magnet electrical angle is equivalent to the length of time a magnetic pole travels two pole pitches which is equivalent to the length of time the electromotive force (voltage) completes one cycle.

3. A rotating machine as set forth in claim 1 wherein the machine comprises an electrical generator.

4. A rotating machine as set forth in claim 3 wherein the permanent magnets rotate and the coil windings are fixed against rotation.

5. A rotating machine as set forth in claim 4 wherein the magnet electrical angle is equivalent to the length of time a magnetic pole travels two pole pitches which is equivalent to the length of time the electromotive force (output voltage) completes one cycle.